

Data Sharing With ICTS

Strategies and Lessons

Merging LTS Data

Robert Stout

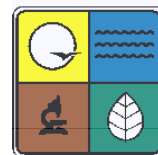


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Natural Resources

Data Sharing with ICTS

Missouri's SMARS system

- Access database developed over the past 10 years to record and report management of cleanup projects
- Contains historical information on Superfund, Federal Facility, VCP, sites in State cleanup programs. Did not include RCRA Corrective Action or Tanks



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Data Sharing with ICTS

The IC data standard

- Missouri's involvement
- Data tiers in the standard
- Definitions and distinctions
- Harvesting opportunities
- Dealing with data gaps
- Structuring data storage
- Serving the data



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Data Sharing with ICTS

Missouri's involvement

- CERCLA T3 focus group within ASTSWMO
 - technological challenges
 - data harvesting exercises
- Long-term stewardship and institutional controls
 - CERCLA cleanups in O&M, groundwater, Times Beach and Weldon Springs
- RODs, Removals, and RBCA
- Brownfields and public notice requirements



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Data Sharing with ICTS

The IC data standard

Identifying data we already had

Determining what we “really” needed and wanted

Collection methodologies



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Harvesting opportunities were not as rich as assumed

Facility name, address info

Description and history of operations

GIS point data

Program milestones

Contaminants

Media



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Data Sharing with ICTS

Definitions and distinctions

What you see is not necessarily what you get

- site or operable unit or extent of contamination
- contaminants of concern versus contamination remaining



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Data Sharing with ICTS

Dealing with data gaps

- Designing forms that people want to use
- Reducing repetition in data entry
- Providing benefits to user



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Long Term Stewardship

Location **Armour Road**

All

New Location

Delete Location

Summary

Contaminants

Media

Objectives

Choose Instruments

Instrument Details

Contacts/Affiliates

Activities/Monitoring

Reports

Site/Facility Name: **Armour Road**

Operable Unit Name: **Armour Road**



IC Maintenance

Address: **2251 Armour Road**

City: **North Kansas City**

County: **Clay**

Operations

► Herbicide Manufacturing/use

Contaminants

► Thallium sulfate

2,4-Dichlorophenol

Benzo(a)pyrene

Lead

Mercury

Antimony

Arsenic

Media Impacted

► Soil

Water

Contacts

Role

► K.C. 1986 Limited Partnership

IC Implementation

Superfund Section

IC Monitoring

Instrument Types

State Hazardous Waste Registry

► Deed Notice

Data Sharing with ICTS

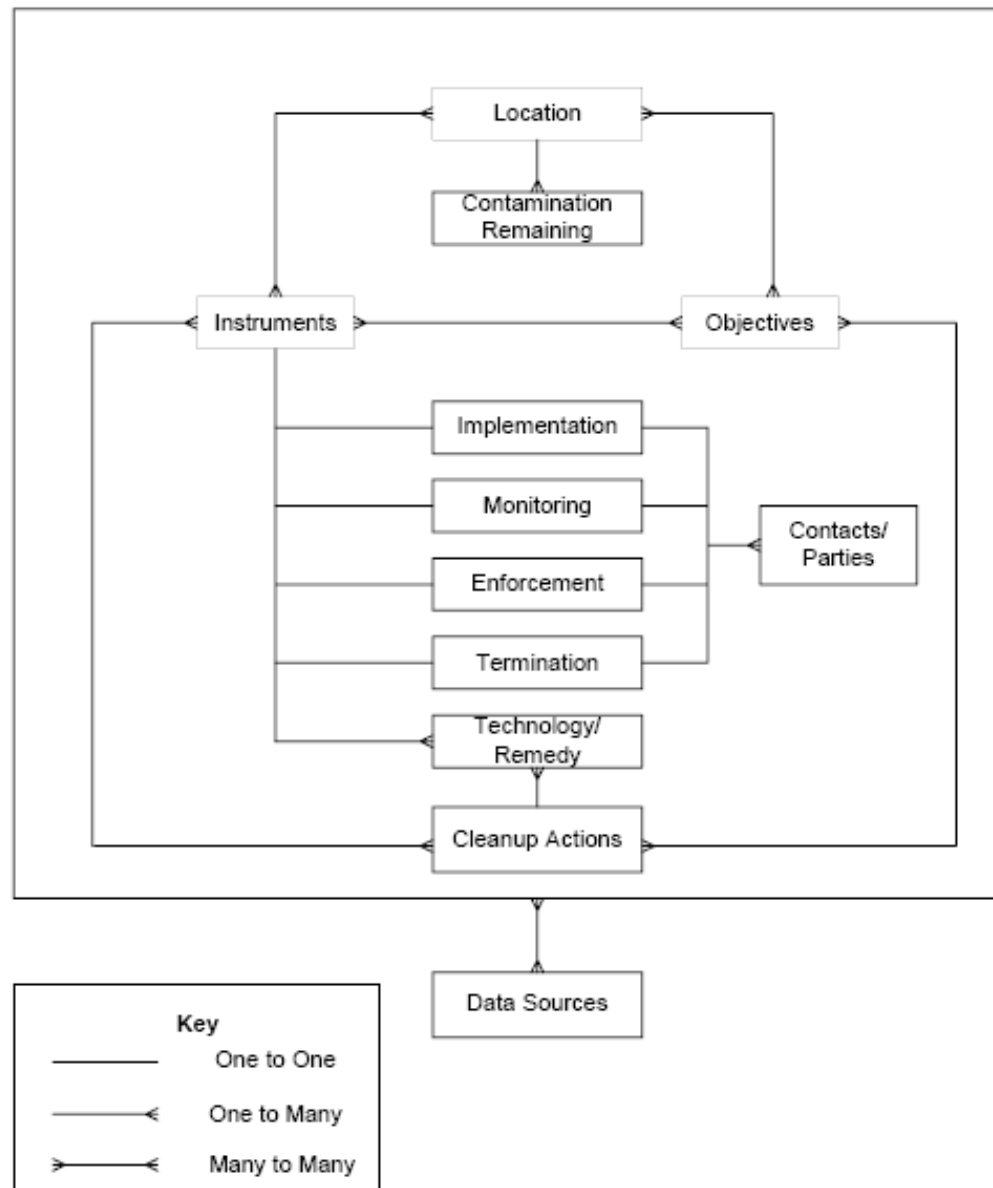
Structuring data storage

- ICTS Structure was ambiguous
- ICTS design vs. relationship structure
- Creating relationships would require more complex and tedious data entry
- Simplified solution--How can we convey what is happening on the site? Our answer was to move relationship to site level.



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IC Information Category Relationship Diagram



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Contaminant	Media Categories				Soil		Water		Other							
	Soil	Water	Other	Air	Sub surface	Surface	Ground	Surface	Debris	Liquid Waste	Leachate	Residuals	Sediment	Sludge	Solid Waste	Structure
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4-Dichlorophenol	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4-Dichlorophenoxy acetic acid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antimony	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arsenic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benzo(a)pyrene	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record:

1

of 15

Long Term Stewardship

Location:

Summary | Contaminants | Media | **Objectives** | Choose Instruments | Instrument Details | Contacts/Affiliates | Activities/Monitoring | Reports

Objectives

<input type="checkbox"/>	Other
<input type="checkbox"/>	Prohibit Aquatic Food Consumption
<input type="checkbox"/>	Prohibit Direct Contact
<input type="checkbox"/>	Prohibit Drinking
<input type="checkbox"/>	Prohibit Other Use (Industrial, Food Preparation, Gardening, Agricultural, etc.)
<input type="checkbox"/>	Prohibit Pumping (Plume Movement)
<input type="checkbox"/>	Prohibit Recreational Exposure
<input type="checkbox"/>	Prohibit Residential Exposure
<input type="checkbox"/>	Prohibit School/Daycare Exposure
<input type="checkbox"/>	Prohibit Utility Worker/Excavation Exposure
<input type="checkbox"/>	Protect Integrity of an Engineered Remedy
<input checked="" type="checkbox"/>	Provide Information

Long Term Stewardship

Location

Armour Road

All

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Summary

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Use profile to select Instruments

Proprietary	<input type="checkbox"/>	Proprietary
	<input type="checkbox"/> Deed Restriction	Proprietary
	<input type="checkbox"/> Easement	Proprietary
	<input type="checkbox"/> Restrictive Covenant	Proprietary
	<input type="checkbox"/> Reversionary Interest	Proprietary
Informational	<input type="checkbox"/>	Informational
	<input type="checkbox"/> Advisory	Informational
	1 <input checked="" type="checkbox"/> Deed Notice	Informational
	<input type="checkbox"/> Listing - Unspecified Type	Informational
	<input type="checkbox"/> Notice	Informational
	<input type="checkbox"/> Publication	Informational

Record:

1

of 28

A. Have a basis in real property law.

B. Create a legal property interest or ownership. For example, an easement grants to a party the ability to access or use the property or a portion thereof for a specific purpose.

C. Are legal instruments placed in the chain of title of the site or property. The instrument may include the conveyance of a property interest from the owner (grantor) to a second party (grantee) for the purpose of restricting land or resource use. An example of this type of control is an easement that provides access rights to a property so the Potentially Responsible Party (PRP), facility owner/operator, or regulatory agency may inspect and monitor a groundwater pump-and-treat system or cover system. Such as easement may be included in a Warranty Deed for a property sale, or filed

The screenshot shows the 'Long Term Stewardship' application window. The 'Location' field is set to 'Armour Road' and the 'All' dropdown is selected. The 'Instrument Details' tab is active, displaying a table of instruments. The table has four columns: Instrument Type, Category, Description, and Implementation Date. Two instruments are listed: 'Deed Notice' (Informational, 5/16/1997) and 'State Hazardous Waste Registry' (Informational, 5/22/1997). Below the table, the 'Data Sources/Resources' tab is selected, showing a list of restriction types. 'Registry Use Restrictions' is checked, and 'Hazardous Substance(s) Remaining' is unchecked. A text box at the bottom contains the following text: 'Any change of use must be approved by the Department. Disclosure of Registry status is required prior to property transfer.'

Instrument Type	Category	Description	Implementation Date
Deed Notice	Informational	Deed Notice	5/16/1997
State Hazardous Waste Registry	Informational	Registry Listing	5/22/1997
*			

Use Restrictions | Data Sources/Resources

Restriction Type	
Registry Use Restrictions	<input checked="" type="checkbox"/>
Hazardous Substance(s) Remaining	<input type="checkbox"/>

Any change of use must be approved by the Department.
Disclosure of Registry status is required prior to property transfer.

Long Term Stewardship

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Add Contact to Site

Contact	Role	Organization	Phone	Email	Title
▶ Superfund Section	IC Monitoring	Hazardous Waste Program			
K.C. 1986 Limited Partnership	IC Implementation	K.C. 1986 Limited Partnership			
*					

Record: 1 of 2

Long Term Stewardship

Location

Summary

Monitoring Party	Monitoring Fee	1st Insp. Date	Inspection Frequency	Inspection Due	Section	Notes	Rescinded
▶ BVCP	\$5,000.00	12/8/2004	Every 1 Year(s)	7/15/2006	VCP		
*	\$0.00		Every 1 Year(s)		Superfund		

▶ Initiated Completed Activity Mgr.
 Hrs. Monitoring Record

Conducted an inspection on 07/05/05. The site is in compliance with the restrictive covenant.

Activities/Inspections

Activity	Initiated	Completed	Desc	Ownership
Site Inspection	07/15/2005	07/15/2005	Conducted an inspection on	VCP
Site Inspection	12/08/2004	12/08/2004	GSH - Conducted a site inps	VCP



Undo



Save



Delete

Status Report



New



Duplicate



Save



Delete

Filter

All

From

To


10/01/2005


12/31/2005

Long Term Stewardship

Location:


Summary | Contaminants | Media | Objectives | Choose Instruments | Instrument Details | Contacts/Affiliates | Activities/Monitoring | **Reports**


Summary Report


Site Inspection Due

☒ Current Location
☐ All Locations
☐ Output to XML

Section


VCP Institutional Controls

Data Sharing with ICTS

Serving the data

We have two distinct users

ICTS

- structured output mapped to data standard and formatted for integration

Public

- narrative information, portable with summary data and directions to source

<?xml version="1.0"?>

<EPAPortalDocument><EPAPortalDocumentType>IC

Tier1</EPAPortalDocumentType><EPAPortalDocumentTypeIdentifier>514</EPAPortalDocu

mentTypeIdentifier><EPAPortalDocumentIdentifier>843</EPAPortalDocumentIdentifier

1</EPAPortalDocumentTitle><LocationDetails><LocationIdentifier/><RegionNumber>07

</RegionNumber><GeographicAddress><LocationStateCode>MO</LocationStateCode></Geo

graphicAddress><FacilitySite><FacilitySiteIdentifier>673</FacilitySiteIdentifier

1</FacilitySiteName><FacilitySiteNameType>SMARS</FacilitySiteNameType></Facility

Site><ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Is

there residual contamination for the site above a level that prohibits

unrestricted use/unlimited exposure in

air?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQuestion><

ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Is there

residual contamination for the site above a level that prohibits unrestricted

use/unlimited exposure in ground

water?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQuestion

><ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Is there

residual contamination for the site above a level that prohibits unrestricted

use/unlimited exposure in

sediments?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQues

tion><ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Is

there residual contamination for the site above a level that prohibits

unrestricted use/unlimited exposure in

soil?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQuestion>

<ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Is there

residual contamination for the site above a level that prohibits unrestricted

use/unlimited exposure in surface

water?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQuestion

><ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Are

there ICs required (those called for in decision documents) to protect the

remedy in

air?</ICQuestionText><ICQuestionIdentifier></ICQuestionIdentifier></ICQuestion><

ICQuestion><ICQuestionResponse>no</ICQuestionResponse><ICQuestionText>Are there

ICs required (those called for in decision documents) to protect the remedy in

Sites in Missouri with Institutional Controls

Monday, March 20, 2006

Site/Facility Name: Ash Grove Quarry

Operable Unit Name: Ash Grove Quarry Tract 1

Address: East Trailway at National

City: Springfield

County: Greene

Zip: 65802

Operation: Quarry

Contaminants and Media

Other
Soil
Subsurface Soil
Metals
Metals, VOCs
Metals, VOCs

Objectives

Other
Prohibit Direct Contact
Prohibit Utility Worker/Excavation Exposure

Instruments

Instrument Type: Residue Control

Instrument Category: Proprietary

Instrument Type: Monitoring Contract

Instrument Category: Enforcement

Instrument Use: Restriction:

Restriction Type: Construction Restrictions

Restriction Text: J. Soil at the Property contains contaminants, as identified in reports on file at the department offices in Jefferson City, Missouri, at concentrations exceeding the department's cleanup standards for (commercial (Property Use B)/Industrial (Property Use C)) use (in the areas shown on the map at Exhibit () attached here to). Therefore, no buildings may be constructed on the Property (in the areas shown on the map at Exhibit () attached here to) except with the written permission of the department. Should the owner or operator desire to construct a building on the Property (in one or more of the areas shown on the map at Exhibit () attached here to), they shall request permission to do so from the department at least 30 days before construction is anticipated to begin. Based on the potential hazards associated with the construction activities, the department may deny the request to construct or may require specific protective or remedial actions before allowing such construction activities to occur.

Restriction Type: Non-Residential Use

Restriction Text: The Property currently meets the department standards for restricted commercial use (Property Use B) and, based on reports on file at the department offices in Jefferson City, Missouri, the contaminants present pose no significant present or future risk to human health or the environment based on restricted use of the Property. No further response action for the Property is required by the department as long as the Property is not to be used for residential (Property Use A) or other purposes constituting unrestricted use. Since Property Use B cleanup standards are equal to or more stringent than Property Use C (Industrial use), the Property also meets or exceeds Property Use C standards and may be used for Property Use C uses. The Property shall not be used for purposes other than commercial or industrial uses. If any person desires in the future to use the Property for residential or other purposes constituting unrestricted use, the department must be notified 120 days in advance and further analyses and, as necessary, response actions will be necessary prior to such use. The Property may not be used in a manner such that the definition of Property Use A would define the use of the site.

Contacts

Contact Name	Role	Organization	Phone	Email
Bob Rick	IC Implementation	The Forester Group	(417)866-6444	bob@forestergroup.com
Brownfield/Voluntary Cleanup Section	IC Monitoring	Hazardous Waste Program	573-526-2813	

Monitoring

Initiated	Re-initiated	Monitoring Re-	First Inspection	Inspection Frequency
5/19/2004		Paid	1/26/2004	Annually

Data Sharing with ICTS

Conclusions and Next Steps

- The users need the information now
- The information must be readily accessible
- The information must be accurate
- The presentation needs to be intuitive
- We don't need to make it too complicated as long as the more technical data are available and the path to this information is clear